

Currency Ink Production: Batch Weighing Procedure

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QUALITY PROC.

Responsible Organization: Facilities Support Branch

Approved By: Robert Hobbs Signature: <SIGNED>

1.0 Purpose

To establish baseline procedures for weighing ink ingredients.

2.0 Scope

This procedure applies to all Ink Makers of the BEP/WCF.

3.0 Responsibilities

- 3.1 It is the responsibility of all ink making personnel to follow this procedure, and to inform management of any necessary changes to the procedure.
- 3.2 It is the responsibility of the Manager of the Fort Worth mill to ensure that this procedure adequately describes the weighing process, and that the procedure is fully adhered to in the production of currency inks.
- 3.3 It is the responsibility of the utility ink maker to ensure that the correct ink making raw material drum is placed on the suction side of each Batchelor pump. The pumps will have additional ink making raw materials by the pump that this raw material serves. The drums of additional in making raw materials will be staged in their properly marked raw material storage areas.

4.0 General

Be careful not to step on the scale while weighing ingredients.

If a power outage occurs, the uninterruptible power supply (UPS) unit will maintain the Batchelor power and the batch information will not be lost. However, plant air will be lost to the pumps. Therefore, the stop button on the Batchelor control panel should be pressed until power resumes. The "Emergency Stop" buttons are for life-safety emergencies, not power problems.

Generally, Station No. 2 will be used to weigh out Reconstituted Ink batches since it is the only station equipped to pump the pre-wipe ink. However, the formula is set up in Station No.1 to allow all ingredients except the pre-wipe to be added at that location.

Ingredient chemicals have the following names (Scale ID) in the Batchelor computer:

| Scale ID | Ingredient | |
|----------|--------------------------------|--|
| AL | Low Viscosity Alkyd | |
| AQ | Aqua Wipe Varnish | |
| AT | Atlas G-3300 | |
| CB | Special Furnace black | |
| CC | Calcium Carbonate | |
| CO | Cobalt 5.6% Drier | |
| FE | Black Iron Oxide | |
| MN | Manganese paste G-67 Drier | |
| MS | Odorless Mineral Spirits | |
| OL | Plate Oil | |
| PW | Fort Worth Prewipe Black Ink | |
| QS | 4607 Quickset Vehicle (P-1416) | |
| WX | Wax | |

5.0 Procedure

- **5.1** Receive Batch Ticket from QC Lab Technician.
- **5.2** Place ink tub under Batchelor hood and remove handle.
- **5.3** Fill out batch ticket with scale number, mixer number and operator initials.
- **5.4** Make sure all manual shut-off valves on Batchelor are in the open position.
- **5.5** Make sure that scrubber (dust collector) is in operation.
- **5.6** Laboratory personnel will determine the magnetic content of the pre-wipe, and select the appropriate Recon formulation based on pre-wipe magnetic content.
- **5.7** Press FORMULA SELECT on control panel. Turn the SELECT knob to get correct formula.
- **5.8** Press the ZERO button and then press START.
- 5.9 When the Batchelor requests a "HAND ADD" move the Batchelor hood to add required ingredients. When the "HAND ADD" is complete, reposition the hood over the tub. Press "HAND ADD ACK." The computer will go back to automatic mode.
- **5.9 Off Tolerance** Off Tolerance caused by addition of too much or too little of an ingredient should be corrected, if possible, by removing the excess or adding more ingredient.

If you receive an "off tolerance" message on the display:

- **5.9.1** To proceed, press "SILENCE ALARM" to see if you're over or under.
- **5.9.2** Press "ACCEPT OFF TOLERANCE" button and the computer will resume in automatic mode. At the end of the cycle, review the Batchelor printout. The printout will show which ingredients were "off tolerance."
- **5.9.3** If the "off tolerance" was caused by the addition of too much of an ingredient and that ingredient cannot be reduced because of natural mixing, set batch aside and notate on ticket that batch is to be scrapped. Notify lab tech and lnk Manager of problem.

- **5.9.4** If additional ingredients need to be added, use the following procedure:
 - Place MODE SWITCH to manual.
 - Use the SELECT knob to select ingredient needed
 - Add amount of material needed by pressing MANUAL FEED button.
 - Push MANUAL PRINT
 - Include the printout from the manual additions with the batch ticket.

When weighing is complete, wipe the rim of the tub, replace the dolly handle and move tub to mixing unit. Put batch ticket and printout from Batchelor together in document protector and place in the tub handle.

| REVISION | PURPOSE OF REVISION | EFFECTIVE DATE |
|----------|---|-------------------|
| 1 | Added detail on staging ink making raw materials. | 7/22/02 |
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